

REMARKS

In accordance with the foregoing, claim 51 has been amended. Claims 1-41 and 49-56 are pending, with claims 1, 7, 10, 23, 34, 39, 49, and 51 being independent. Claims 1-6, 10-23, 26-30, 34-38, and 49-56 are under consideration as being directed to elected Invention I, with claims 1-6, 10-22, 34-38, 49, 50, and 52-56 being readable on elected Species A; claim 51 being generic to elected Species A and non-elected Species B; claims 26-30 of Species B being linking claims that link together the inventions of Species A and B; and claim 23 of Species B being the base claim of linking claims 26-30. Claims 7-9, 24, 25, 31-33, and 39-41 are withdrawn from consideration as being directed to elected invention I but being readable on non-elected Species B. Claims 4-6, 12-14, 17-22, 36-38, and 50 of Species A are linking claims that link together the inventions of Species A and B. No new matter is presented in this Amendment.

Applicants' Statement of Substance of Interview

A personal interview was conducted on June 23, 2009, by the Examiner, Natalie K. Walford, her supervisor, Supervisory Patent Examiner (SPE) Nimeshkumar D. Patel, and the undersigned attorney, Randall S. Svihla. At the end of the interview, the Examiner gave the attorney an Interview Summary in which the Examiner states as follows:

Claim(s) discussed:

Identification of Prior Art discussed:

Substance of Interview: The Applicant's representative and Examiner discussed how the proposed amendment of claim 51 overcame the previously presented 112 rejection. The applied 102 reference was also discussed regarding which direction the tension was being applied. No agreement was made.

The applicants' statement of the substance of the interview required by the Interview Summary and MPEP 713.04 is as follows.

During the interview, the attorney showed amended claim 51 presented in this Amendment to the Examiner and her supervisor, who stated that the amendments appeared to overcome the rejection of claim 51 under 35 USC 112, second paragraph, subject to further review.

During the interview, the attorney went over the arguments presented below with respect to claims 1, 2, 4, and 10 and explained why Miyauchi et al. (Miyauchi) (JP 2000-12238) does not disclose or suggest these features.

In response to the arguments with respect to claim 1 regarding the tension in Miyauchi being applied in a different direction than the tension recited in claim 1, the supervisor stated that the Examiner would have to review Miyauchi again to determine whether these arguments are correct.

In response to the arguments with respect to claim 1 that there is no basis in Miyauchi for the Examiner's position that some of the band-like slots 302 in FIG. 9 of Miyauchi are "main apertures" as recited in claim 1, and that other ones of these band-like slots 302 are "first dummy apertures" as recited in claim 1, the supervisor stated that claim 1 merely recites a mask and does not define the "main apertures" and the "first dummy apertures" recited in claim 1, and therefore it is the supervisor's position that the modifiers "main" and "first dummy" in claim 1 are not entitled to any patentable weight.

In response to the arguments with respect to claim 2, the supervisor stated that claim 2 merely recites a mask and does not recite actually depositing anything, and therefore it is the supervisor's position that the terms "effective deposition area" and "ineffective deposition area" in claim 2 are not entitled to any patentable weight.

In response to the arguments with respect to claim 4, the supervisor stated that he was unsure if it would be possible to interpret Miyauchi in a manner that provides all of the features recited in claim 4 in combination with the features recited in claim 1 from which claim 4 indirectly depends.

In response to the arguments with respect to claim 10, the supervisor acknowledged that claim 10 is a method that actually recites forming something, and accordingly the Examiner will have to give patentable weight to the feature "forming a first dummy pattern area outside the effective luminescent area through the first dummy apertures" recited in claim 10.

During the interview, the attorney went over the arguments presented below with respect to claim 3, and explained why there would have been no reason for one of ordinary skill in the art to combine Miyauchi and Nakagawara et al. (Nakagawara) (JP 2002-60927) in the manner

proposed by the Examiner. The supervisor stated that the Examiner will take these arguments under advisement.

During the interview, the attorney stated that Miyauchi and Nakagawara relied on by the Examiner in the Office Action of March 24, 2009, were cited in a Japanese Office Action issued in the Japanese priority application of the present application, and that the Japanese priority application has now issued as a patent.

Request for Termination of Prosecution and Allowance of Application

MPEP 707.02 states as follows on MPEP page 700-115:

The supervisory patent examiners should impress their assistants with the fact that the shortest path to the final disposition of an application is by finding the best references on the first search and carefully applying them.

The supervisory patent examiners are expected to personally check on the pendency of every application which is up for the third or subsequent Office action with a view to finally concluding its prosecution.

Any application that has been pending five years should be carefully studied by the supervisory patent examiner and every effort should be made to terminate its prosecution. In order to accomplish this result, the application is to be considered "special" by the examiner.

The Office Action of March 24, 2009, is the ninth Office Action on the merits that has been issued in the present application without any Request for Continued Examination (RCE) having been filed. This does not count the two Office Actions of October 4, 2005, and March 10, 2006, in which the original Examiner and the current Examiner set forth restriction requirements and requirements for an election of species. Furthermore, original claims 1-6, 10-23, 26-30, 35-38, 49, and 50 that are under consideration have never been amended, while original claim 34 that is under consideration has been amended only once to correct a typographical error. Also, the present application was filed on November 24, 2003, and thus has been pending for more than five years. Accordingly, it is respectfully requested that the Examiner, Natalie K. Walford, and her supervisor, Supervisory Patent Examiner (SPE) Nimeshkumar D. Patel, work together to terminate prosecution and allow the application.

Allowable Subject Matter

Claims 12-14, 17-23, 26-30 and 36-38 have been objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. However, claim 23 is an independent claim, and accordingly it is submitted that the correct status of claim 23 and claims 26-30 depending therefrom is that these claims are allowed. Furthermore, claims 12-14, 17-22, and 36-38 have not been rewritten in independent form at this time as suggested by the Examiner because claims 10, 12, 15, 20, and 34 from which these claims directly or indirectly depend are also considered to be allowable for at least the reasons discussed below.

Claim Rejections Under 35 USC 112

Claim 51 has been rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that the applicants regard as the invention. This rejection is respectfully traversed.

The Examiner states as follows:

Regarding claim 51, the claim limitation "the dummy aperture prevents the main aperture from being deformed" is rendered unclear and indefinite. It is not understood how the dummy aperture prevents the main aperture from being deformed. What exactly does the dummy aperture do such that the main aperture is not deformed? Hence, claim 51 is rendered indistinct and indefinite.

Although the applicants do not agree that claim 51 is indefinite as alleged by the Examiner, solely in an effort to eliminate this issue and advance the prosecution of the application, the feature of claim 51 referred to by the Examiner has been amended as follows to eliminate the alleged deficiencies identified by the Examiner:

wherein the dummy aperture ~~prevents~~ is deformed when a tension is applied to the evaporation mask in a direction perpendicular to a longitudinal direction of the main aperture and a longitudinal direction of the dummy aperture, thereby minimizing a deformation of the main aperture from being deformed by the tension applied to the evaporation mask.

This feature is shown, for example, in FIGS. 7 and 8, and is described, for example, in paragraphs [0087]–[0089] of the specification.

For at least the foregoing reasons, it is respectfully requested that the rejection of claim 51 under 35 USC 112, second paragraph, be withdrawn.

Request for Human English Translations of Miyauchi and Nakagawara

In rejecting claims 1-6, 10, 11, 15, 16, 34, 35, and 49-56 over the prior art, the Examiner has relied on machine English translations of Miyauchi et al. (Miyauchi) (JP 2000-12238) and Nakagawara et al. (Nakagawara) (JP 2002-60927). However, these machine English translations are virtually incomprehensible in many parts. Accordingly, should the Examiner continue to rely on Miyauchi and Nakagawara, it is respectfully requested that the Examiner obtain human English translations of Miyauchi and Nakagawara from the Translations Branch of the Scientific and Technical Information Center (STIC) of the U.S. Patent and Trademark Office pursuant to MPEP 901.05(d) (see MPEP page 900-21) and MPEP 901.06(a)(IV)(D) (see MPEP pages 900-24 and 900-25).

Furthermore, should the Examiner rely on any other foreign-language reference in any future Office Action, it is respectfully requested that the Examiner obtain a human English translation of the foreign language reference before issuing the future Office Action, and provide a copy of the human English translation with the future Office Action.

Claim Rejections Under 35 USC 102

Claims 1, 2, 4, 5, 10, 15, 34, and 49-56 have been rejected under 35 USC 102(b) as being anticipated by Miyauchi et al. (Miyauchi) (JP 2000-12238) cited in the Information Disclosure Statement of August 29, 2005, with the Examiner relying on a machine English translation of Miyauchi obtained by the Examiner. This rejection is respectfully traversed.

The Examiner did not provide a copy of the English translation with the Office Action of March 24, 2009, as required by MPEP 707.05(a). On April 23, 2009, the undersigned attorney, Randall S. Svihla, called the Examiner and pointed this out, and requested that the Examiner

both fax and mail a copy of the English translation to the attorney and restart the period for response pursuant to MPEP 707.05(g) and 710.06.

On April 23, 2009, the Examiner faxed a copy of the English translation to the attorney, and sent an e-mail to the attorney notifying the attorney that the Examiner had faxed the copy the English translation. However, the copy of the English translation faxed by the Examiner includes only an English translation of the detailed description of Miyauchi, and does not include an English translation of the claims and the description of the drawings of Miyauchi.

On April 23, 2009, the attorney sent an e-mail to the Examiner pointing this out, and requesting that the Examiner mail a copy of the English translation to the attorney so that the copy of the English translation would be scanned into the image file wrapper, and requesting that the period for response be restarted. However, the Examiner did not respond to this e-mail.

Attached hereto is a copy of the facsimile communication from the Examiner transmitted on April 23, 2009, containing the machine English translation of the detailed description of Miyauchi to complete the record since a copy of the facsimile communication was not in the image file wrapper of the application as of the filing date of June 24, 2009, of this Amendment.

Also attached hereto is a List of References Cited by Applicant listing the facsimile communication of April 23, 2009, for the Examiner's convenience in indicating that this reference has been considered.

Independent Claim 1

It is submitted that Miyauchi does not disclose or suggest "at least one mask unit, comprising: a plurality of main apertures, and a plurality of first dummy apertures formed adjacent to outermost ones of the main apertures in a direction in which tension is applied to the evaporation mask" as recited in independent claim 1.

The Examiner states as follows:

Regarding claim 1, Miyauchi discloses an evaporation mask formed of a thin film (item 300) in figure 9, wherein the evaporation mask is drawn taut by application of tension and comprises: at least one mask unit, comprising: a plurality of main apertures (item 301), and a plurality of first dummy apertures (item 302) formed adjacent to outermost ones of the main apertures in a

direction in which tension is applied to the evaporation mask (paragraph 12).

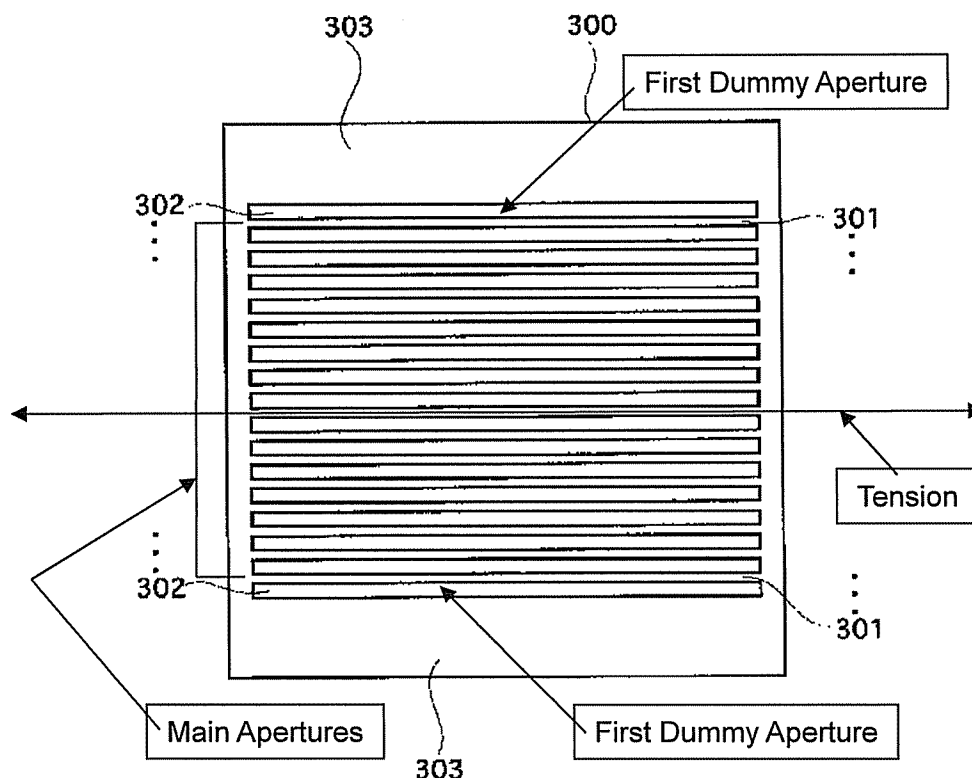
However, the elements 301 in FIG. 9 of Miyauchi are not "a plurality of main apertures" as alleged by the Examiner, but are band-like masking parts 301 that are disposed between the band-like slots 302 in FIG. 9 of Miyauchi. Accordingly, it is submitted that Miyauchi as interpreted by the Examiner does not disclose or suggest "a plurality of main apertures" as recited in claim 1.

Paragraph [0012] of the English translation of Miyauchi relied on by the Examiner states as follows:

[0012]In the mask 300 of such a structure, since the band-like masking part 301 (portion equivalent to the gap of an electrode) will become thin if the pitch of the stripe shape to form becomes detailed, sag arises and exact patterning cannot be performed. For this reason, it is necessary to apply a tension to this portion by suitable power.

However, this paragraph does not disclose the direction in which the tension is applied, such that this paragraph of Miyauchi does not disclose "a plurality of first dummy apertures formed adjacent to outermost ones of the main apertures in a direction in which tension is applied to the evaporation mask" as recited in claim 1.

For the purposes of this discussion, it will be presumed that all of the band-like slots 302 in FIG. 9 of Miyauchi except for the top band-like slot 302 and the bottom band-like slot 302 are "a plurality of main apertures" as recited in claim 1. Also, it will be presumed that the top band-like slot 302 and the bottom band-like slot 302 are "a plurality of first dummy apertures formed adjacent to outermost ones of the main apertures" as recited in claim 1. Furthermore, it is submitted that it can be seen from paragraph [0036] of the English translation of Miyauchi that tension is applied to the mask 300 in FIG. 9 in the longitudinal direction of the band-like masking parts 301 and band-like slots 302 as shown in the following marked-up copy of FIG. 9 of Miyauchi:



Paragraph [0036] of Miyauchi relates to the embodiment in FIG. 2 of Miyauchi, and states as follows (emphasis added):

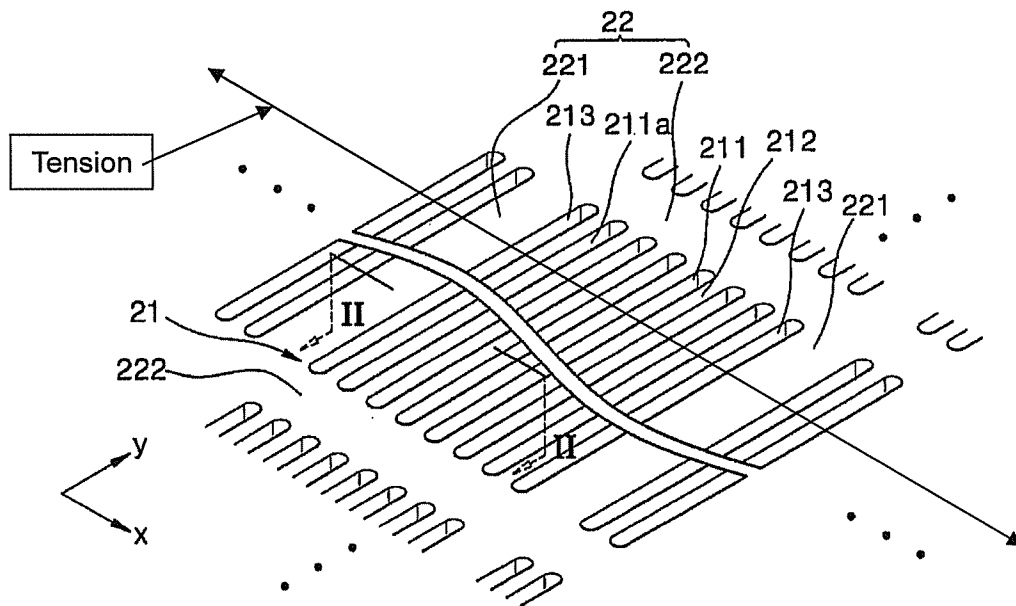
[0036]The manufacturing process of the 2nd electrode 7 is explained. This mask is attached to the jig for sag prevention, and is used within the vacuum housing used for vacuum evaporation of an electrode pattern. Specifically, the two connecting parts 13 of the electrode mask part 10 are attached to the jig in a vacuum housing. And with a jig, the power of the direction which separates to the two connecting parts 13 and 13 is applied, and hauling of a longitudinal direction is given to the masking part 12.

The band-like masking parts 12 in FIG. 2 of Miyauchi correspond to the band-like masking parts 301 in FIG. 9 of Miyauchi. The difference between the mask 300 in FIG. 9 and the mask 2 in FIG. 2 is that the mask 300 in FIG. 9 is formed in a single piece so what when a jig applies a tension to the right and left sides of the mask 300 to apply a tension in the longitudinal direction of the band-like masking parts 301, a tension is also applied to the terminal mask parts 303 on the top and bottom of the mask 300, which causes a large force to be exerted on the jig for applying the tension. In contrast, the mask 2 in FIG. 2 is formed in three pieces, the electrode mask part 10 and the two terminal mask parts 11 on the top and bottom of the

electrode mask part 10, and a jig applies a tension only to the connecting parts 13 on the right and left sides of the electrode mask part 10 to apply a tension in the longitudinal direction of the band-like masking parts 12 without applying a tension to the terminal mask parts 11, thereby exerting a much smaller force on the jig.

Thus, as can be seen from the above marked-up copy of FIG. 9 of Miyauchi, the first dummy apertures are formed adjacent to the outermost ones of the main apertures in a direction that is perpendicular to the direction in which tension is applied to the mask 300.

In contrast, claim 1 recites, among other features, "a plurality of first dummy apertures formed adjacent to outermost ones of the main apertures in a direction in which tension is applied to the evaporation mask." While not limited thereto but for ease of explanation, in FIG. 5 of the present application, the first dummy apertures 213 are formed adjacent to the outermost ones of the main apertures 211 in the x-axis direction in which tension is applied to the mask 20 as described, for example, in paragraphs [0081] and [0084] of the specification of the present application. A marked-up copy of FIG. 5 of the present application showing the tension applied in the x-axis direction in one example of the claimed invention is provided below:



Accordingly, for at least the foregoing reasons, it is submitted that Miyauchi does not disclose or suggest "at least one mask unit, comprising: a plurality of main apertures, and a plurality of first dummy apertures formed adjacent to outermost ones of the main apertures in a direction in which tension is applied to the evaporation mask" as recited in claim 1.

Furthermore, it is not seen where Miyauchi makes any distinction whatsoever between various ones of the band-like slots 302 in FIG. 9 of Miyauchi relied on by the Examiner, such that there is no basis whatsoever in Miyauchi for the Examiner's position that some of these band-like slots 302 are "main apertures" as recited in claim 1, and that other ones of these band-like slots 302 are "first dummy apertures" as recited in claim 1. Nor has the Examiner explained why she considers this to be the case. Thus, the Examiner's position is based solely on a hindsight reconstruction of the invention arrived at by reading the applicants' disclosure.

Furthermore, with respect to the position taken by the supervisor during the interview of June 23, 2009, discussed above that the modifiers "main" and "first dummy" are not entitled to any patentable weight because claim 1 merely recites a mask and does not define the "main apertures" and the "first dummy apertures" recited in claim 1, it is submitted that the Examiner and the supervisor have not identified any legal basis for such a position in the statutes, rules, procedures, or case law, and absent such a legal basis, such a position is improper.

Dependent Claim 2

It is submitted that Miyauchi does not disclose or suggest the feature "wherein the main apertures form an effective deposition area, and the first dummy apertures form an ineffective deposition area" recited in dependent claim 2.

The Examiner states as follows:

Regarding claim 2, Miyauchi discloses the evaporation mask of claim 1, wherein the main apertures form an effective deposition area (paragraph 7), and the first dummy apertures form an ineffective deposition area (paragraph 7).

Paragraph [0007] of Miyauchi states as follows:

[0007]The organic EL device for said XY matrix displays patterns the 1st electrode with photolithography method etc. on the glass substrate, on it, laminates an organic layer and the 2nd electrode

one by one with a vacuum deposition method, and forms them. A dry process needs to perform patterning of the 2nd electrode in the meaning which prevents damage to an organic layer. The following methods are tried as a method of patterning the 2nd electrode of a detailed pitch by a dry process.

It is submitted that nothing whatsoever in this paragraph can reasonably be considered to disclose the feature "wherein the main apertures form an effective deposition area, and the first dummy apertures form an ineffective deposition area" recited in claim 2. Nor has the Examiner explained why she considers paragraph [0007] of Miyauchi to disclose this feature of claim 2.

Furthermore, with respect to the position taken by the supervisor during the interview of June 23, 2009, discussed above that the terms "effective deposition area" and "ineffective deposition area" in claim 2 are not entitled to any patentable weight because claim 2 merely recites a mask and does not recite actually depositing anything, it is submitted that the Examiner and the supervisor have not identified any legal basis for such a position in the statutes, rules, procedures, or case law, and absent such a legal basis, such a position is improper.

Dependent Claim 4

It is submitted that Miyauchi does not disclose or suggest "at least two mask units, and further comprising a plurality of second dummy apertures formed outside and adjacent to the outermost mask units in the direction in which tension is applied to the evaporation mask" as recited in dependent claim 4.

The Examiner states as follows:

Regarding claim 4, Miyauchi discloses the evaporation mask of claim 2, comprising at least two mask units, and further comprising a plurality of second dummy apertures (item 302) formed outside and adjacent to the outermost mask units in the direction in which tension is applied to the evaporation mask (paragraph 12).

However, the Examiner has not identified which elements in the drawings of Miyauchi she considers to be "at least two mask units" as recited in claim 4, such that the Examiner has not established a *prima facie* case of anticipation with respect to claim 4.

Furthermore, it is not seen how any of Miyauchi's masks can reasonably be considered to comprise "at least two mask units" as recited in claim 4. Rather, it is submitted that each of Miyauchi's masks is a single mask unit that is used to form a single organic electroluminescent device, such as the organic electroluminescent device 1 shown in FIG. 1 of Miyauchi. Accordingly, it is submitted that Miyauchi does not disclose or suggest "[an] evaporation mask . . . comprising at least two mask units" as recited in claim 4.

Furthermore, it is not seen where Miyauchi makes any distinction whatsoever between various ones of the band-like slots 302 in FIG. 9 of Miyauchi relied on by the Examiner, such that there is no basis whatsoever in Miyauchi for the Examiner's position that some of these band-like slots 302 are "main apertures" as recited in claim 1, that other ones of these band-like slots 302 are "first dummy apertures" as recited in claim 1, and that still other ones of these band-like slots 302 are "second dummy apertures" recited in claim 4 depending indirectly from claim 1. Nor has the Examiner explained why she considers this to be the case. Thus, the Examiner's position is based solely on a hindsight reconstruction of the invention arrived at by reading the applicants' disclosure.

Furthermore, for at least the reasons discussed above in connection with claim 1, all of the band-like slots 302 in FIG. 9 of Miyauchi are formed relative to one another in a direction that is perpendicular to the direction in which tension is applied to the mask 300, rather than "in the direction in which tension is applied to the evaporation mask" as recited in claim 4.

Dependent Claim 5

It is submitted that Miyauchi does not disclose or suggest the feature "wherein the second dummy apertures are formed outside the effective deposition areas where the mask units are formed" recited in dependent claim 5.

The Examiner states as follows:

Regarding claim 5, Miyauchi discloses the evaporation mask of claim 4, wherein the second dummy apertures are formed outside the effective deposition areas where the mask units are formed (paragraph 7).

Paragraph [0007] of Miyauchi is reproduced above in the discussion of claim 2, and it is submitted that nothing whatsoever in this paragraph can reasonably be considered to disclose

the feature "wherein the second dummy apertures are formed outside the effective deposition areas where the mask units are formed" recited in claim 5. Nor has the Examiner explained why she considers paragraph [0007] of Miyauchi to disclose this feature of claim 5.

Independent Claim 10

It is submitted that Miyauchi does not disclose or suggest "at least one mask unit, the mask unit comprising a plurality of main apertures and a plurality of first dummy apertures formed adjacent to outermost ones of the main apertures in a direction in which tension is applied to the evaporation mask" as recited in independent claim 10 for at least the same reasons discussed above that Miyauchi does not disclose or suggest the same features of claim 1.

Furthermore, it is submitted that Miyauchi does not disclose or suggest "forming a first dummy pattern area outside the effective luminescent area through the first dummy apertures" as recited in claim 10.

The Examiner states that Miyauchi discloses "forming a first dummy pattern area (area around item 302) outside the effective luminescent area through the first dummy apertures." However, the "area around item 302" referred to by the Examiner is merely the solid portions of Miyauchi's mask 300 in FIG. 9 of Miyauchi in which the band-like slots 302 are formed. These solid portions do not form any pattern apart from the pattern of the band-like slots 302, and thus cannot reasonably be considered to be "a first dummy pattern area" as recited in claim 10. Furthermore, the Examiner apparently considers the outermost ones of Miyauchi's band-like slots 302 to be "first dummy apertures" as recited in claim 10. However, none of the solid portions of the mask 300 around the band-like slots 302 are formed through the outermost ones of the band-like slots 302 as would be necessary for the Examiner's position that the solid portions of the mask 300 around the band-like slots 302, i.e., the "area around item 302," are "a first dummy pattern area" as recited in claim 10 to be even remotely arguably correct.

Dependent claim 15

It is submitted that Miyauchi does not disclose or suggest "a second dummy pattern area is formed outside the effective luminescent area through the first dummy apertures" as recited in

dependent claim 15 for at least the same reasons discussed above that Miyauchi does not disclose or suggest the similar feature of claim 10.

Independent claim 34

It is submitted that Miyauchi does not disclose or suggest "a plurality of main apertures and a plurality of first dummy apertures formed adjacent to outermost ones of the main apertures in a direction in which tension is applied to the evaporation mask" as recited in independent claim 34 for at least the same reasons discussed above that Miyauchi does not disclose or suggest the same features of claim 1.

Independent Claim 49

It is submitted that Miyauchi does not disclose or suggest "at least one mask unit comprising: at least one main aperture, and at least one first dummy aperture formed adjacent to an outermost at least one main aperture in a direction in which tension is applied to the evaporation mask" as recited in independent claim 49 for at least the same reasons discussed above that Miyauchi does not disclose or suggest the similar features of claim 1.

Dependent Claim 50

It is submitted that Miyauchi does not disclose or suggest "at least one second dummy aperture formed outside and adjacent to the outermost at least one mask unit in the direction in which tension is applied to the evaporation mask" as recited in dependent claim 50 for at least the same reasons discussed above that Miyauchi does not disclose or suggest the same or similar feature of claim 4.

Independent claim 51

It is submitted that Miyauchi does not disclose or suggest "[a] mask unit for an evaporation mask, comprising: a main aperture; and a dummy aperture" as recited in

independent claim 51 for at least the same reasons discussed above that Miyauchi does not disclose or suggest the similar features of claim 1.

Furthermore, it is submitted that Miyauchi does not disclose or suggest the feature "wherein the dummy aperture prevents the main aperture from being deformed by tension applied to the evaporation mask" previously recited in claim 51.

The Examiner states as follows:

Regarding claim 51, Miyauchi discloses a mask unit in figure 9 for an evaporation mask, comprising: a main aperture (item 301); and a dummy aperture (item 302); wherein the dummy aperture prevents the main aperture from being deformed by tension applied to the evaporation mask.

However, element 301 in FIG. 9 of Miyauchi is a band-like masking part, not an "aperture" as recited in claim 51. Furthermore, the Examiner has not identified where Miyauchi discloses the feature "wherein the dummy aperture prevents the main aperture from being deformed by tension applied to the evaporation mask" previously recited in claim 51, and/or explained why she considers Miyauchi to disclose this feature, such that the Examiner has not established a *prima facie* case of anticipation with respect to claim 51. Furthermore, it is submitted that Miyauchi does not disclose or suggest the following feature now recited in claim 51:

wherein the dummy aperture is deformed when a tension is applied to the evaporation mask in a direction perpendicular to a longitudinal direction of the main aperture and a longitudinal direction of the dummy aperture, thereby minimizing a deformation of the main aperture by the tension applied to the evaporation mask.

Conclusion—Claim Rejections Under 35 USC 102

For at least the foregoing reasons, it is respectfully requested that the rejection of claims 1, 2, 4, 5, 10, 15, 34, and 49-56 (i.e., claims 1, 2, 4, 5, 10, 15, 34, and 49-51 discussed above and claims 52-56 depending from claims 1, 10, 34, 49, and 51) under 35 USC 102(b) as being anticipated by Miyauchi be withdrawn.

Claim Rejections Under 35 USC 103

Claims 3, 6, 11, 16, and 35 have been rejected under 35 USC 103(a) as being unpatentable over Miyauchi in view of Nakagawara et al. (Nakagawara) (JP 2002-60927) cited in the Information Disclosure Statement of August 29, 2005, with the Examiner presumably relying on the machine English translation of Nakagawara provided with the Office Action of June 29, 2006. This rejection is respectfully traversed.

Dependent Claim 3

It is submitted that Miyauchi and Nakagawara do not disclose or suggest the feature "wherein at least one of the first dummy apertures is formed parallel to the main apertures, and at least another one of the first dummy apertures is formed perpendicular to the main apertures" recited in dependent claim 3.

The Examiner states as follows:

Regarding claim 3, Miyauchi discloses the evaporation mask of claim 2, but does not expressly disclose that at least one of the first dummy apertures is formed parallel to the main apertures, and at least another one of the first dummy apertures is formed perpendicular to the main apertures, as claimed by Applicant. Nakagawara is cited to show a mask in figure 1 with dummy apertures (item 3) that are formed parallel and perpendicular to main apertures (item 2). Nakagawara teaches that this pattern on the mask can absorb thermal expansion of the mask during formation (paragraph 6).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Miyauchi's invention to include at least one of the first dummy apertures is formed parallel to the main apertures, and at least another one of the first dummy apertures is formed perpendicular to the main apertures as suggested by Nakagawara for absorbing thermal expansion of the mask during formation.

However, it is submitted that the Examiner has not established that Miyauchi's mask would experience thermal expansion during formation of a pattern. According to paragraph [0016] of Nakagawara, Nakagawara's pattern is formed by sputtering at a temperature of 200 °C.

In contrast, according to paragraphs [0010], [0038], and [0039] of Miyauchi, Miyauchi's pattern is formed by vapor deposition. Thus, although the sputtering at a temperature of 200 °C used by

Nakagawara apparently causes thermal expansion of a mask, nothing whatsoever in the record indicates that the vapor deposition used by Miyauchi causes thermal expansion of a mask. Accordingly, it is submitted that nothing whatsoever in Miyauchi and Nakagawara would have given one of ordinary skill in the art a reason to provide Miyauchi's mask with the dummy openings 3 in FIG. 1 of Nakagawara as proposed by the Examiner. Rather, the only suggestion that this be done is contained in the applicants' disclosure, such that the combination of Miyauchi and Nakagawara proposed by the Examiner is based solely on an impermissible hindsight reconstruction of the invention arrived at by reading the applicants' disclosure, which is improper pursuant to MPEP 2145(X)(A).

Dependent Claim 6

It is submitted that Miyauchi and Nakagawara do not disclose or suggest the feature "wherein at least one of the second dummy apertures is formed parallel to the main apertures of the mask units, and at least another one of the second dummy apertures is formed perpendicular to the main apertures" recited in dependent claim 6.

The Examiner states as follows:

Regarding claim 6, Miyauchi discloses the evaporation mask of claim 4, but does not expressly disclose that at least one of the second dummy apertures is formed parallel to the main apertures of the mask units, and at least another one of the second dummy apertures is formed perpendicular to the main apertures, as claimed by Applicant. Nakagawara is cited to show a mask in figure 1 with dummy apertures (item 3) that are formed parallel and perpendicular to main apertures (item 2). Nakagawara teaches that this pattern on the mask can absorb thermal expansion of the mask during formation (paragraph 6).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Miyauchi's invention to include at least one of the first dummy apertures is formed parallel to the main apertures, and at least another one of the first dummy apertures is formed perpendicular to the main apertures as suggested by Nakagawara for absorbing thermal expansion of the mask during formation.

However, although the Examiner discusses second dummy apertures in the first paragraph above, the Examiner only discusses first dummy apertures in the second paragraph

above. Accordingly, it is submitted that the Examiner has not established a *prima facie* case of obviousness with respect to claim 6 because the Examiner has not even alleged that it would have been obvious to provide Miyauchi's mask with Nakagawara's alleged second dummy apertures.

Further, for at least the same reasons discussed above in connection with claim 3, it is submitted that it the only suggestion that Miyauchi and Nakagawara be combined to allegedly provide all of the features of claim 6 is contained in the applicants' disclosure, such that the combination of Miyauchi and Nakagawara apparently proposed by the Examiner is based solely on an impermissible hindsight reconstruction of the invention arrived at by reading the applicants' disclosure, which is improper pursuant to MPEP 2145(X)(A).

Dependent Claims 11, 16, and 35

It is submitted that Miyauchi and Nakagawara do not disclose or suggest the features recited in dependent claims 11, 16, and 35 for at least the same reasons discussed above that Miyauchi and Nakagawara do not disclose or suggest the same or similar features of claims 3 and 6.

Conclusion—Claim Rejections Under 35 USC 103

For at least the foregoing reasons, it is respectfully requested that the rejection of claims 3, 6, 11, 16, and 35 under 35 USC 103(a) as being unpatentable over Miyauchi in view of Nakagawara be withdrawn.

Rejoinder of the Invention of Non-Elected Species B

Since claim 51 which is generic to elected Species A and non-elected Species B is allowable for the reasons discussed above; since claims 4-6, 12-14, 17-22, 36-38, and 50 of Species A which are linking claims that link together the inventions of Species A and B are allowable for the reasons discussed above; since claims 26-30 of Species B which are linking claims that link together the inventions of Species A and B are allowable for the reasons discussed above; and since claim 23 of Species B is allowable for the reasons discussed above,

it is submitted that the applicants are entitled to rejoinder of the invention of non-elected Species B pursuant to 37 CFR 1.141(a) and MPEP 821.04(a). Accordingly, it is respectfully requested that the requirement for an election of species be withdrawn, and that claims 7-9, 24, 25, 31-33, and 39-41, which are currently withdrawn from consideration as being readable on non-elected Species B, be examined on the merits.

Japanese Priority Application in which Miyauchi and Nakagawara Were Cited Has Now Issued as a Patent

Miyauchi and Nakagawara relied on by the Examiner in the Office Action of March 24, 2009, were cited in a Japanese Office Action issued on October 14, 2004, in Japanese Application No. 2002-347977, the Japanese priority application of the present application. Miyauchi, Nakagawara, and the Japanese Office Action were cited in the Information Disclosure Statement of August 29, 2005, filed in the present application. Japanese Application No. 2002-347977 issued as Japanese Patent No. 4173722 on October 29, 2008. Attached hereto is a copy of Japanese Patent No. 4173722 (including a complete machine English translation) from which it can be seen that claims 1-48 of Japanese Patent No. 4173722 are basically similar to claims 1-48 of the present application. Since the Japanese Patent Office has determined that claims 1-48 of Japanese Application No. 2002-347977 are patentable over Miyauchi and Nakagawara relied on by the Examiner in the Office Action of March 24, 2009, it is submitted that at least similar claims 1-48 of the present application are also patentable over Miyauchi and Nakagawara, and an indication to that effect is respectfully requested. Japanese Patent No. 4173722 is listed in the List of References Cited by Applicant attached hereto for the Examiner's convenience in indicating that this reference has been considered.

Conclusion

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.


Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with the filing of this paper, please charge the same to our Deposit Account No. 503333.

Respectfully submitted,

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Attachments